

What is claimed is:

1. An optical path device, installed in an optical device, and the optical path device comprising:

- 5           a light source, used to provide the optical path device an incident light;  
          a reflection unit, used to reflect the incident light, wherein the reflection unit comprises a parallel mirror set including a first reflection mirror and a second reflection mirror, a third reflection mirror, and a fourth reflection mirror; and  
          a lens, used to focus the incident light reflected by the reflection unit to form  
10   images,

          wherein, an optical path of the incident light provided by the light source is in sequence: the light source-the parallel mirror set-the third reflection mirror-the parallel mirror set- the fourth reflection mirror-the lens.

- 15           2. The optical path device according to claim 1, wherein the third reflection mirror is an optical path turning mirror.

          3. The optical path device according to claim 1, wherein the fourth reflection mirror is an imaging mirror.

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          4. The optical path device according to claim 1, wherein the optical device is an optical scanner.

5. The optical path device according to claim 4, wherein the optical device comprises an original document surface used to deposit a document desired to be scanned, and the original document surface is parallel to the parallel mirror set.

5        6. The optical path device according to claim 5, wherein the incident light provided by the light source is projected to the original document surface first, and then reflected to the parallel mirror set.

10       7. The optical path device according to claim 6, wherein between the incident light and the original document surface, there is an incident angle greater than 0 degree.

15       8. The optical path device according to claim 7, wherein when the incident angle decreases, the reflection number of the incident light reflected between the parallel mirror set increases.

20       9. The optical path device according to claim 1, wherein between the third reflection mirror and a parallel surface of the parallel mirror set, there is an included angle between 0 degree and 180 degrees, and when the included angle decreases, the reflection number of the incident light reflected between the parallel mirror set increases.

10. The optical path device according to claim 1, wherein between the first

reflection mirror and the second reflection mirror, there is a predetermined distance, and when the predetermined distance decreases, the reflection number of the incident light reflected between the parallel mirror set increases.

5            11. An optical path device, installed in an optical scanner, wherein the optical scanner comprises an original document surface used to deposit a document desired to be scanned, and the optical path device comprising:

             a light source, used to provide an incident light projected to the document desired to be scanned deposited on the original document surface;

10           a reflection unit, used to reflect the incident light reflected from the original document surface, wherein the reflection unit comprises a parallel mirror set including a first reflection mirror and a second reflection mirror, a third reflection mirror, and a fourth reflection mirror, and the parallel mirror set is parallel to the original document surface;

15           a lens, used to focus the incident light reflected by the reflection unit to form an imaging signal; and

             a charge coupled device (CCD), used to covert the imaging signal produced by the lens into an electronic signal,

             wherein, an optical path of the incident light provided by the light source is in  
20        sequence: the light source-the original document surface-the parallel mirror set-the third reflection mirror-the parallel mirror set- the fourth reflection mirror-the lens.

             12. The optical path device according to claim 11, wherein the third reflection mirror is an optical path turning mirror, used to turn the incident light reflected from

the parallel mirror set and make the incident light reflect into the parallel mirror set again.

13. The optical path device according to claim 11, wherein the fourth  
5 reflection mirror is an imaging mirror.

14. The optical path device according to claim 11, wherein between the  
incident light and the original document surface, there is an incident angle greater  
than 0 degree, and when the incident angle decreases, the reflection number of the  
10 incident light reflected between the parallel mirror set increases.

15. The optical path device according to claim 11, wherein between the third  
reflection mirror and a parallel surface of the parallel mirror set, there is an included  
angle between 0 degree and 180 degrees, and when the included angle decreases, the  
15 reflection number of the incident light reflected between the parallel mirror set  
increases.

16. The optical path device according to claim 11, wherein between the first  
reflection mirror and the second reflection mirror, there is a predetermined distance,  
20 and when the predetermined distance decreases, the reflection number of the incident  
light reflected between the parallel mirror set increases.

17. The optical path device according to claim 11, wherein the parallel mirror

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set is parallel to the original document surface.

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